

**Title: Heavy ion collisions and the Quark Gluon Plasma: many results and many more questions**

**Speaker: *Giorgio Torrieri - Columbia University***

I will describe the main experimental results, and the most common theoretical interpretation, of the physics of heavy ion collisions at RHIC and the LHC. I will argue that, while the results are undoubtedly interesting, connection to fundamental theory, both QCD and statistical mechanics, are still extremely weak. Furthermore a conclusive link between heavy ion data and the onset of deconfinement, the main objective of heavy ion experiments, is currently still lacking.

I will by discussing the open questions which need to be resolved in order to clarify the issues above, as well as the experimental measurements necessary for clarifying such questions.